

REMARKS

Upon entry of this amendment, claims 2-4 and 6-7 and 9 will be in the case.

IN THE CLAIMS

Claims 2-4 and 6-8 stand rejected under 35 U.S.C. § 112, first paragraph, as containing new matter not supported by the specification (see para. 4 of office action dated 12/6/00).

Claims 4 and 6-8 stand rejected under 35 U.S.C. § 112, second paragraph, for being indefinite (see para. 5). Claims 2-4 and 6-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Scaramella et al. (see para. 9). Finally, claim 8 is objected to as being unclear (see para. 2).

Applicant has cancelled claim 8 and made certain amendments to claims 2, 4 and 7 in order to place all pending claims in this case in condition for allowance (i.e., claims 2-4 and 6-7). Further, Applicant has provided argument below to support the case for allowance. Applicant thus respectfully requests that all pending claims be allowed.

A. Rejection under 35 U.S.C. § 112, first paragraph (new matter rejection) is unsound and should be withdrawn.

Applicant respectfully traverses the Examiner's rejection of claims 2-4 and 6-8 based on the addition of new matter - i.e., the addition by amendment to claim 2 of the limitation "only." In light of the following argument, Applicant asserts that no new matter arose by amending claim 2 to include the limitation "only." Notwithstanding the traverse by Applicant, Applicant nonetheless amends claim 2 to remove the limitation "only." In addition, Applicant adds new claim 9 for consideration. New claim 9 recites

"[I]nformation contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter." M.P.E.P. § 2163.06. Because the specification and drawings of the application as filed support the amendment introducing the limitation "only," Applicant asserts that no new matter

was involved, and that the rejection asserting the addition of new matter by amendment was unsound.

Applicant first directs the Examiner's attention to specific references in the specification that support the limitation "only." For example, at page 3, line 15, Applicant discusses a pipette tip storage and transfer system that facilitates "transfer of pipette tips from a storage container to a holding tray without requiring latching mechanisms or other moving parts." See Application as filed, page 3, lines 14-15 (emphasis added). Consistent with the foregoing, at page 4, lines 5-10, Applicant discusses a plurality of projections that extend from the bottom surface of the transfer plate. See Application as filed, page 4, lines 5-10; see also page 7, line 11 to page 8, line 2 ("A plurality of projections or bosses 34 are attached to a bottom surface 31 of rectangular plate 32"). Applicant also directs the Examiner's attention to FIGS. 3-4 and 7-8, which figures show only projections or bosses extending from the undersurface of the transfer member.

Applicant also directs the Examiner's attention to the discussion regarding the practiced embodiments. For example, on page 9, lines 5-6, Applicant positively recites a plurality of projections extending from the transfer member "into the aperture 26 at least half the depth 51 of the aperture or the length of the upper portion 28 of the pipette tip." See Application as filed, page 9, lines 5-6. **This feature enables one to practice Applicant's transfer system without the need for a latching mechanism.** Stated otherwise, the extended projections obviate the need for anything else to extend from the undersurface to affect the stable engagement with the pipette tips. Moreover, additional structure extending from the undersurface would likely interfere with one of Applicant's objectives, which is to reduce as much as practicable the cost of manufacture, the complexity of operation, and the amount of packaging material disposed during operation of the transfer system.

One skilled in the art would recognize the foregoing discussion as describing a transfer member with only projections or bosses extending therefrom. Such recognition would follow from, among other things (i) the positive recitation of a transfer system without requiring latching mechanisms or other moving parts (see Application as filed, page 3, lines 14-15); (ii) the detailed description of the preferred embodiment (see Application as filed, page 4, lines 5-10; page 7, line 11-page 8, line 2; page 9, lines 5-6); (iii) the information conveyed in figures 3-4 and 7-8; (iv) the description on how to operate the transfer system using the thumb and fingers of a hand (see Application as filed, page 10, lines 5-26).

In summary, nowhere in the specification, claims or drawings as filed does Applicant suggest the possibility of the undersurface having anything but projections or bosses extending therefrom. Rather, Applicant discloses a transfer system having only a plurality of projections extending from the undersurface of the transfer member. This characterization of Applicant's disclosure is consistent with a primary feature of Applicant's transfer system, which is the ability to affect a transfer of the pipette tips using only a plurality of projections extending from the undersurface of the transfer member - i.e., without the need for a latching mechanism or other moving parts. Accordingly, Applicant respectfully disagrees with the Examiner's contention that the addition of the limitation "only" to claim 2 constitutes the addition of new matter. Applicant thus requests reconsideration of the rejection.

In view of the foregoing, Applicant has added new claim 9 for consideration. New claim 9 is similar to amended claim 2, excepting the added recitation: "said transfer member being a plate without structure connected thereto for connecting said plate to said receiving card . . ." In light of the foregoing discussion, Applicant asserts new claim 9 to be in condition for allowance.

B. Rejection under 35 U.S.C. § 112, second paragraph (limitation defined by an unknown quantity) is unsound and should be withdrawn.

Applicant respectfully traverses the Examiner's rejection of claims 4 and 6-8 for failing to particularly point out and distinctly claim the subject matter which Applicant regards as his invention - i.e., the recitation in claim 4 that the spacing is "less than the distance from the first joint of the user's thumb and the tip of the user's thumb." In light of the following argument, Applicant asserts that the reference to the "user's thumb" satisfies the requirements of 35 U.S.C. § 112, second paragraph.

The second paragraph of 35 U.S.C. § 112 requires claims to set out and circumscribe a particular area with a reasonable degree of precision and particularity. In re Johnson, 558 F.2d 1008, 1015, 194 USPQ 187, 193 (CCPA 1977). In making this determination, the definiteness of the language employed in the claims must be analyzed, not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. Id.

The Examiner's focus in rejecting claims 4 and 6-8 is that reference to a user's thumb is indefinite. In response, Applicant respectfully asserts that the Examiner is not focusing on the claim language in light of the teachings of the prior art and of the disclosure contained in Applicant's specification. Stated otherwise, when the claim language referencing the "user's thumb" is viewed in light of Applicant's specification, drawings and claims, the claims circumscribe the boundaries of the claimed subject matter with the requisite degree of precision and particularity. Applicant explains further below.

Those skilled in the art will recognize the general dimensions of a pipette transfer system. Those skilled in the art will also recognize the general dimensions of a human thumb likely to be operating the transfer system. Figure 8 illustrates the relative dimensions of the pipette transfer

system when referenced using the thumb of a user. Those skilled in the art will thus recognize, with a reasonable degree of precision and particularity, the dimensions of the transfer system.

As those skilled in the art will recognize the dimensional boundaries of the claimed subject matter of Applicant's transfer system, using the user's thumb as a reference, the mandate of 35 U.S.C. § 112, second paragraph, is satisfied. As such, Applicant requests that the rejection be withdrawn.

C. Rejection under 35 U.S.C. § 103 (a) is unsound and should be withdrawn.

Applicant respectfully traverses the Examiner's rejection of claims 2-4 and 6-8 as being obvious over Scaramella et al. In light of the following points raised by argument, Applicant asserts that the rejection should be withdrawn and the rejected claims allowed.

1. Scaramella et al. does not suggest or teach Applicant's invention.

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." M.P.E.P. § 2143.03 (citing In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). Because certain of the claim limitations of Applicant's invention are not taught or suggested by Scaramella et al., Applicant asserts that the claims are not obvious. Accordingly, Applicant asserts that the claims are in a condition for allowance.

a. Scaramella et al. does not suggest or teach sizing in length the projections or bosses to affect a stable engagement of the pipette tips.

Scaramella et al. teaches sizing the bosses to be short and stubby relative to the length of the pipette tips (see Scaramella et al., FIG. 8). This feature of Scaramella et al., in conjunction with use of the holder card and the latching mechanism, is purported to result in a stable engagement of the pipette tips with respect to the transfer plate. Short and stubby bosses, however, permit the pipette tips to wobble with respect to the transfer plate when the latching mechanism is not attached. The user, therefore, is required to attach the latching mechanism to

the system prior to affecting a stable transfer of the pipette tips. **The latching mechanism is, thus, essential to providing a useful product when the bosses are of a short and stubby nature.**

Applicant, on the other hand, teaches use of extended bosses or projections to affect a stable engagement, without the need for a latching mechanism. The extended length of the bosses of Applicant's invention prevent each pipette tip from moving more than a few degrees from the axes defined by the respective bosses because the side wall of any such pipette tip will contact the end of the boss if movement relative to the transfer plate is imposed on the pipette tip. The short and stubby bosses of Scaramella et al. do not allow for this feature of Applicant's invention. Applicant's invention thus permits rapid and stable transfer of the pipette tips, **without the added cost and time associated with making and using the latching mechanism.**

As stated above, the bosses of Scaramella et al. are simply not long enough to achieve the axial stability that is realized using Applicant's bosses. Hence, Scaramella et al. requires the addition of the latching mechanism to achieve the desired axial stability. Because Scaramella et al. does not teach or suggest using extended bosses to affect stable engagement with the pipette tips, Applicant asserts that Scaramella et al. does not render Applicant's invention obvious.

- b. Scaramella et al. does not suggest or teach using extended projections to (i) enable grasping of the transfer plate and the holder card by the fingers of a user and (ii) prevent relative rotation between the transfer plate and the holder card.**

Scaramella et al. teaches use of a latching mechanism to releasably secure the holder card to the transfer plate for transfer purposes. Scaramella et al., col. 3, lines 66-68. Further, Scaramella et al. teaches use of a non-circular structure for the latching mechanism such that relative rotation between the card and plate is prevented while the card and plate are latched together. Scaramella et al., col. 4, lines 12-15. On the other hand, there is no suggestion or

teaching in Scaramella et al. to employ extended projections to enable securing of the holder card to the transfer plate using the thumb and fingers of a user's hand. Nor is there any suggestion to employ the extended projections to prevent relative rotation between the plate and card. Finally, the use by Scaramella et al. of extended projections is contrary to an objective of Scaramella et al., which is to reduce the amount of waste produced.

As discussed above, the extended projections or bosses affect a stable engagement between the transfer member and the pipette tips. The extended projections thus enable a user to grasp the holder card and transfer plate, in tandem, using only the fingers of the user's hand, without the need for a latching mechanism. The extended projections also enable a user to prevent relative rotation between the card and plate while they are held together, using only the fingers of the user's hand, without the need for a latching mechanism.

Because Scaramella et al. does not teach or suggest using extended projections or bosses in conjunction with the fingers of a user's hand to secure the holder card to the transfer plate, or to prevent relative rotation thereof, Applicant asserts that Scaramella et al. does not render Applicant's invention obvious.

2. Elimination of the latching mechanism of Scaramella et al. does not render Applicant's invention obvious as the function of the latching mechanism remains.

The Examiner concludes that Applicant's elimination of the locking means (a/k/a latching mechanism 32) of Scaramella et al. is an obvious modification to the art. See Office Action mailed 12/06/00, Para. 9. The Examiner supports this conclusion, and hence rejection, by citing case law for the proposition that "omission of an element with a corresponding omission of function is within the level of ordinary skill in the art." Id. (citations omitted). Applicant respectfully traverses the Examiner's rejection, however, by pointing out that although the locking means of Scaramella et al. has been excluded in Applicant's invention, the function of

the locking means has been retained by employing reconfigured bosses. Applicant thus asserts that the invention as presently claimed is allowable. See, e.g., In re Edge, 359 F.2d 896, 149 U.S.P.Q. 556 (CCPA 1966) (the omission of an element while retaining its function is not obvious); see also M.P.E.P. § 2144.04(II)(B) (the omission of an element and retention of its function is an indicia of unobviousness).

Scaramella et al. discloses a latching mechanism specially designed to releasably secure the holder card to the transfer plate (col. 3, lines 67-68) and to prevent relative rotation between the card and the plate (col. 4, lines 12-15). The function of the latching mechanism appears, therefore, to maintain the holder card and the transfer plate in a substantially fixed orientation with respect to one another (i.e., fixed spacing distance and rotational orientation) during transfer of the pipettes from the box to the pipette holder tray. Indeed, if such functions were not present, the pipette tips would be subject to falling out of alignment with the openings in the pipette holder tray during the transfer operation.

Applicant, on the other hand, discloses a system that enables these functions of the latching mechanism to be retained without the need for the latching mechanism. Applicant's system employs a transfer member (similar to the transfer plate of Scaramella et al.) that is positionable a specified distance from the receiving plate (similar to the holder card of Scaramella et al.) such that both the transfer member and the receiving plate may be maintained in a substantially fixed orientation by the thumb and fingers of a user. See Specification as filed, page 10, lines 5-21. Because the extended projections or bosses affect a stable engagement of the pipettes with the transfer member, the fingers of a user are able to (i) maintain the substantially fixed orientation without the need for the latching mechanism, and (ii) prevent, for example, relative rotation between the card and plate without the need for the latching mechanism.

The foregoing is similar to the scenario presented in In re Edge, *supra*. In re Edge considered claims directed to a printed sheet having a thin layer of erasable metal bonded to the sheet wherein the thin layer obscured printed matter thereunder until removal of the layer through erasure. The prior art disclosed a similar printed sheet which further comprised an intermediate transparent and erasure-proof protecting layer. The intermediate protecting layer prevented erasure of the printed matter when the top layer was erased. The court held the claims unobvious over the prior art notwithstanding the fact that the intermediate protective layer had been eliminated in the claims. The court so held because the function of the intermediate protective layer had been retained.

Applicant's elimination of the latching mechanism is analogous to appellant's elimination of the intermediate protective layer in In re Edge. Both matters concern elimination of an element of a combination of elements disclosed in the prior art while retaining the intended function(s) of that element. Because the functions accomplished by the latching mechanism of Scaramella et al. are retained in Applicant's invention, notwithstanding the elimination of the latching mechanism, Applicant asserts that the claimed invention is not obvious and therefore allowable.

CONCLUSION

Applicant has demonstrated the importance of the differences and the unobvious nature of the instant invention when compared with Scaramella et al. Applicant has proceeded in a direction not taught or suggested by Scaramella et al. and in a manner that is totally inconsistent with Scaramella et al. Scaramella et al. teaches the need for a mechanical connection between the transfer plate and holder card prior to affecting transfer of the pipette tips. Applicant teaches elimination of the mechanical connection, thus greatly simplifying the transfer process and

reducing cost and waste associated with the latching mechanism. As simplification is invention, Applicant asserts the claims to be in a condition for allowance.

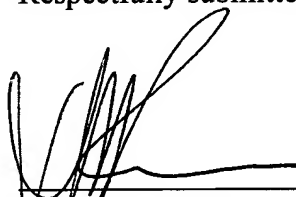
Claims 2-4 and 6-8 stand rejected under 35 U.S.C. §§ 112, first and second paragraph, and 35 U.S.C. § 103(a). Claims 2, 4 and 7 have been amended and claim 8 has been cancelled. Argument has also been provided to overcome the rejections. Applicant respectfully asserts that all pending claims are now in condition for allowance.

Early action and allowance is respectfully requested for all pending claims.

Please charge any fees not accompanying this communication that may be required to deposit account 08-2665.

If there are questions, the Examiner can reach applicants' counsel at (801) 521-5800 or by e-mail at rossat@HRO.com. Please note that applicants' counsel is now at a new address.

Respectfully submitted,



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MARKED-UP COPIES OF AMENDED CLAIMS

(Supplied with Amendment responsive to Office Action dated 12/06/00)

In re the Application of: Jessop et al.

Serial No.: 09/196,524

Filed: November 20, 1998

For: PIPETTE TIP PACKAGING AND TRANSFER SYSTEM

Group Art Unit: 1743

Examiner: HANDY, D.

Atty. File No.: 45874-00030 (formerly 3517.1)

2. (Twice Amended) A system for positioning pipette tips into a dispensing tray which has a matrix of apertures sized to receive pipette tips therein with said pipette tips having a length, said system comprising:

a receiving card having a matrix of card apertures substantially uniformly sized for positioning pipette tips there through to register with each aperture of a matrix of tray apertures of a dispensing tray having a matrix of tray apertures each of which is sized to receive a pipette tip therein, said receiving card having an upper surface spaced from a lower surface, said card apertures each being shaped and sized to receive a pipette tip to hold said pipette tip with a portion extending a spacing distance away from said upper surface of said receiving card, said receiving card having a length and a width and said receiving card having two opposite card edges extending along said length of said receiving card in substantial alignment;

a transfer member for engaging and maintaining said pipette tips in a stable position relative to said receiving card [member], said transfer member being a plate with an upper surface and with an undersurface having [only] a plurality of [extensions] projections extending from said undersurface, each of which [extensions] projections is positioned and sized to extend into said pipette tips a preselected distance to stably engage said pipette tips positioned in said matrix of card apertures, said plate having a length and a width and said plate having two opposite plate edges extending along said length of said plate in substantial alignment with each other for positioning relative to the card edges to be engageable with the card edges by the thumb and a finger of a user to retain the receiving card and the plate in alignment [with each other and with said plurality of extensions] inserted into respective pipette tips and with a finger positioned against said upper surface of said plate to urge said extensions into respective pipette tips and to urge said pipette

tips into said card apertures to urge said pipette tips into alignment extending away from said receiving card] while transferring said receiving card with said pipette tips from a first location to alignment with and positioning in said matrix of tray apertures of said dispensing tray.

3. The system of claim 2 wherein said receiving card and said plate have substantially the same length and width.

4. (Amended) The system of claim [3] 2 wherein said spacing distance is less than the distance from the first joint of the user's thumb [and] to the tip of the user's thumb.

6. (Twice Amended) The system of claim [4] 3 wherein said receiving card and said plate are substantially rectangular in shape.

7. (Amended) The system of claim 6 wherein said [extensions] projections extend into said pipette tips a distance from about one fourth of said spacing distance to about one half of said spacing distance.

8. (CANCEL) The system of claim 7 wherein said plurality of extensions includes an extension for positioning into each pipette tip on the receiving card.

9. (New claim) A system for positioning pipette tips into a dispensing tray which has a matrix of apertures sized to receive pipette tips therein with said pipette tips having a length, said system comprising:

a receiving card having a matrix of card apertures substantially uniformly sized for positioning pipette tips there through to register with each aperture of a matrix of tray apertures of a dispensing tray having a matrix of tray apertures each of which is sized to receive a pipette tip therein, said receiving card having an upper surface spaced from a lower surface, said card apertures each being shaped and sized to receive a pipette tip to hold said pipette tip with a portion extending a spacing distance away from said upper surface of said receiving card, said receiving card having a length and a width and said receiving card having two opposite card edges extending along said length of said receiving card in substantial alignment;

a transfer member for engaging and maintaining said pipette tips in a stable position relative to said receiving card, said transfer member being a plate without structure connected thereto for connecting said plate to said receiving card, said plate having an upper surface and an undersurface with a plurality of projections extending from said undersurface, each of which projections is positioned and sized to extend into said pipette tips a preselected distance to stably engage said pipette tips positioned in said matrix of card apertures, said plate having a length and a width and said plate having two opposite plate edges extending along said length of said plate in substantial alignment with each other for positioning relative to the card edges to be engageable with the card edges by the thumb and a finger of a user to retain the receiving card and the plate in alignment while transferring said receiving card with said pipette tips from a first location to alignment with and positioning in said matrix of tray apertures of said dispensing tray.